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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,141	09/30/2003	Kenji Nishiumi	4276-0103P	3837

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EXAMINER	
SAFAVI, MICHAEL	
ART UNIT	**PAPER NUMBER**
3673	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/673,141	NISHIUMI ET AL.	
	Examiner	Art Unit	
	M. Safavi	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/30/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese reference 60-85326. Japanese reference '326 discloses Figs. 6 and 7, a steel sheet pile having a "flange" 1a, a pair of webs 1, a pair of arms 1b, and a pair of joints 2. Pages 4-5 of Japanese reference '326 describe the width and height of the sheet pile as ranging from 600 to 1000 mm and from 200 to 600 mm, respectively. The dimensions of the width define the flange width as around 240 to 400 mm. As such, the sheet pile disclosed by Japanese reference '326 meets the limitations of claims 1-10 including satisfying the inequalities presented in each of claims 1, 6, and 7. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the sheet pile of Japanese '326 of a width of from around 890 to 920 mm, a height of from around 230 to 380 mm, and a "flange" width of from around 280 to 350 mm, with a moment of inertia of from around 9,500 to 10,500 cm^4/m, (see instant specification at page 7), thus satisfying any necessary structural requirements while falling within the disclosed ranges of sizing for the Japanese reference '326 sheet pile.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yeates et al.

Yeates et al. discloses Fig. 1b, a steel sheet pile having, (reference characters shown in Fig. 2b), a "flange" 1, a pair of webs 5, a pair of arms 4, and a pair of joints 6/7. Col. 7,lines 64-67, col. 12, lines 47-48, and claim 1 of Yeates et al. describe the width and height of the sheet pile as ranging from 800 to 1500 mm and from 200 to 400 mm, respectively with the "flange width spanning upwards to 450 mm. The dimensions of the width define the flange width as around 240 to 400 mm. As such, the sheet pile disclosed by Yeates et al. meets the limitations of claims 1-10 including satisfying the inequalities presented in each of claims 1, 6, and 7. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the sheet pile of Yeates et al. of a width of from around 890 to 920 mm, a height of from around 230 to 380 mm, and a "flange" width of from around 280 to 350 mm, with a moment of inertia of from around 9,500 to 10,500 cm^4/m, (see instant specification at page 7), thus satisfying any necessary structural requirements while falling within the disclosed ranges of sizing for the Yeates et al. sheet pile.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese reference 60-85326 in view of Europile internet publication of Cold rolled steel sheet piling, (hereinafter Europile).

Japanese reference '326 discloses Figs. 6 and 7, a steel sheet pile having a "flange" 1a, a pair of webs 1, a pair of arms 1b, and a pair of joints 2. Pages 4-5 of

Japanese reference '326 describe the width and height of the sheet pile as ranging from 600 to 1000 mm and from 200 to 600 mm, respectively. The dimensions of the width define the flange width as around 240 to 400 mm. As such, the sheet pile disclosed by Japanese reference '326 meets the limitations of claims 1-10 including satisfying the inequalities presented in each of claims 1, 6, and 7.

Europile discloses various steel sheet piles including those possessing a "flange", a pair of webs, a pair of arms, and a pair of joints. Europile discloses, particularly for sheet pile profile ZK 785, (see, for example, ZK 785-6), dimensions encompassing ranges of from around 890 to 920 mm for width, 230 to 380 mm for height, less than 28 mm for thickness, and 9,500 to 10,500 cm^4/m for moment of inertia.

To have formed the sheet pile of Japanese reference '326 of a width of from around 890 to 920 mm, a height of from around 230 to 380 mm, and a "flange" width of from around 280 to 350 mm, with a moment of inertia of from around 9,500 to 10,500 cm^4/m, (see instant specification at page 7), thus satisfying any necessary structural requirements while falling within the disclosed ranges of sizing for the Japanese reference '326 sheet pile, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Europile.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese reference 60-85326 in view of Europile internet publication of Cold rolled steel sheet piling, (hereinafter Europile).

Yeates et al. discloses Fig. 1b, a steel sheet pile having, (reference characters shown in Fig. 2b), a "flange" 1, a pair of webs 5, a pair of arms 4, and a pair of joints 6/7. Col. 7,lines 64-67, col. 12, lines 47-48, and claim 1 of Yeates et al. describe the width and height of the sheet pile as ranging from 800 to 1500 mm and from 200 to 400 mm, respectively with the "flange width spanning upwards to 450 mm. The dimensions of the width define the flange width as around 240 to 400 mm. As such, the sheet pile disclosed by Yeates et al. meets the limitations of claims 1-10 including satisfying the inequalities presented in each of claims 1, 6, and 7. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the sheet pile of Yeates et al. of a width of from around 890 to 920 mm, a height of from around 230 to 380 mm, and a "flange" width of from around 280 to 350 mm, with a moment of inertia of from around 9,500 to 10,500 cm^4/m, (see instant specification at page 7), thus satisfying any structural requirements while falling within the disclosed ranges of sizing for the Yeates et al. sheet pile.

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To have formed the sheet pile of Yeates et al. of a width of from around 890 to 920 mm, a height of from around 230 to 380 mm, and a "flange" width of from around 280 to 350 mm, with a moment of inertia of from around 9,500 to 10,500 cm^4/m, (see

instant specification at page 7), thus satisfying any necessary structural requirements while falling within the disclosed ranges of sizing for the Yeates et al. sheet pile, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Europile.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (703) 308-2481. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Safavi
August 10, 2004

MICHAEL SAFAVI
PRIMARY EXAMINER
ART UNIT 354